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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,206	04/16/2004	Sung-Su Jung	8734.295.00 US	7672

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EXAMINER

TADESSE, YEWEBDAR T

ART UNIT	PAPER NUMBER
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1734

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/825,206

Applicant(s)

JUNG ET AL.

Examiner

Yewebdar T. Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/07/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I in the reply filed on 10/26/2006 is acknowledged.
2. Claims 14 and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/26/2006.

Claim Objections

3. Claims 2-3 are objected to because of the following informalities: In claim 1, line 3 and claim 3, lines 2-3, the phrase "one of a plurality of image display portions" appears to be grammatically incorrect. "one of pluralities of image display portions" is assumed. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kojima (US 2004/0134619A1).

Kojima discloses (see Figs 3-5) a dispenser for fabricating a liquid crystal display panel, comprising: at least one dispensing unit (4N) to supply a dispensing material on a substrate; at least one support member (4K) to support and align the dispensing unit; and a plurality of syringes (4J1, 4J2) mounted on each of the dispensing unit.

As to claim 2, in Kojima the substrate is capable of having a plurality of thin film transistor arrays defined on the substrate, each thin film transistor array corresponding to a respective one of a plurality of image display portions defined on the substrate.

Regarding claim 3, in Kojima the substrate is capable of having a plurality of color filter arrays defined on the substrate, each color filter array corresponding to a respective one of a plurality of image display portions defined on the substrate.

As to claims 4-6, in Kojima the dispensing material is capable of including sealant for forming a seal pattern, wherein the seal pattern defines an opening at one portion, or a closed pattern encompassing the image display portion.

With respect to claims 7-8, in Kojima the dispensing material capable of including liquid crystal material or capable of including silver.

As to claim 9, Kojima discloses a gap controller (4H) to control a gap between the substrate and the syringes.

With respect to claims 10-11, In Kojima the image display portions are disposed as an array of image display portions on the substrate, and wherein the number of the

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syringes (4J1, 4J2) provided on each one of the dispensing units are capable of corresponding to the number of image display portions formed in a row of the array of image display portions.

With respect to claim 12, in Kojima each one of the plurality of syringes (4J1, 4J2) provided on each one of the dispensing units are movable in at least one direction of the dispensing unit.

Regarding claim 13, at least one of the pluralities of syringes provided on each one of the dispensing units is capable of being fixed with respect to the dispensing unit and the other ones of the syringes are movable at least in one direction of the dispensing unit.

6. Claims 1-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Ingenhoven et al (US 2004/0020942 A1).

Ingenhoven et al discloses (see Fig 5) a dispenser capable of fabricating a liquid crystal display panel, comprising: at least one dispensing unit (channels 11, 24) to supply a dispensing material on a substrate; at least one support member (29) to support and align the dispensing unit; and a plurality of syringes (output channels 12 with needles 30 and tips 6) mounted on each of the dispensing unit.

As to claim 2, in Ingenhoven et al the substrate is capable of having a plurality of thin film transistor arrays defined on the substrate, each thin film transistor array corresponding to a respective one of a plurality of image display portions defined on the substrate.

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Regarding claim 3, in Ingenhoven et al the substrate is capable of having a plurality of color filter arrays defined on the substrate, each color filter array corresponding to a respective one of a plurality of image display portions defined on the substrate.

Regarding claim 3, in Ingenhoven et al the substrate is capable of having a plurality of color filter arrays defined on the substrate, each color filter array corresponding to a respective one of a plurality of image display portions defined on the substrate.

As to claims 4-6, in Ingenhoven et al the dispensing material is capable of including sealant for forming a seal pattern, wherein the seal pattern defines an opening at one portion, or a closed pattern encompassing the image display portion.

With respect to claims 7-8, in Ingenhoven the dispensing material capable of including liquid crystal material or capable of including silver.

As to claim 9, Ingenhoven et al discloses a gap controller (guiding robotic arm 17) is capable of controlling a gap between the substrate and the syringes.

With respect to claims 10-11, In Ingenhoven et al the image display portions are disposed as an array of image display portions on the substrate, and wherein the number of the syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units are capable of corresponding to the number of image display portions formed in a row of the array of image display portions.

With respect to claim 12, in Ingenhoven et al each one of the pluralities of syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units are movable in at least one direction of the dispensing unit.

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Regarding claim 13, at least one of the pluralities of syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units is capable of being fixed with respect to the dispensing unit and the other ones of the syringes (tips 6) are movable at least in one direction of the dispensing unit

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ingenhoven et al (US 2004/0020942 A1).

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As to claim 15, Ingenhoven et al discloses (see Fig 5) a dispenser capable of fabricating a liquid crystal display panel, comprising: at least one dispensing unit (channels 11, 24) to supply a dispensing material on a substrate; at least one support member (29) to support and align the dispensing unit; and a plurality of syringes (output channels 12 with needles 30 and tips 6) mounted on each of the dispensing unit. Ingenhoven et al lacks teaching a plurality of dispensing units, although a plurality of devices capable of having a plurality of dispensing units are taught in Ingenhoven (see paragraph 28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of dispensing units in Ingenhoven et al, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As to claim 16, in Ingenhoven et al the substrate is capable of having a plurality of thin film transistor arrays defined on the substrate, each thin film transistor array corresponding to a respective one of a plurality of image display portions defined on the substrate.

Regarding claim 17, in Ingenhoven et al the substrate is capable of having a plurality of color filter arrays defined on the substrate, each color filter array corresponding to a respective one of a plurality of image display portions defined on the substrate.

Regarding claim 18, in Ingenhoven et al the substrate is capable of having a plurality of color filter arrays defined on the substrate, each color filter array corresponding to a respective one of a plurality of image display portions defined on the substrate.

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As to claims 19-20, in Ingenhoven et al the dispensing material is capable of including sealant for forming a seal pattern, wherein the seal pattern defines an opening at one portion, or a closed pattern encompassing the image display portion.

With respect to claims 21-22, in Ingenhoven the dispensing material capable of including liquid crystal material or capable of including silver.

As to claim 23, Ingenhoven et al discloses a gap controller (guiding robotic arm 17) is capable of controlling a gap between the substrate and the syringes.

With respect to claims 24-25-, In Ingenhoven et al the image display portions are disposed as an array of image display portions on the substrate, and wherein the number of the syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units are capable of corresponding to the number of image display portions formed in a row of the array of image display portions.

With respect to claim 26, in Ingenhoven et al each one of the pluralities of syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units are movable in at least one direction of the dispensing unit.

Regarding claim 27, at least one of the pluralities of syringes (output channels 12 with needles 30 and tips 6) provided on each one of the dispensing units is capable of being fixed with respect to the dispensing unit and the other ones of the syringes (tips 6) are movable at least in one direction of the dispensing unit.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ingenhoven et al (US 2004/0050866) discloses a dispenser

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having a dispensing unit with a plurality of syringes and a plurality of support (see Figs 12-13 and Abstract). Hashimoto et al (US 6,583,848) discloses a dispenser having syringes for in manufacturing liquid crystal device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



YTT